Title: Parking on the integers

Abstract:

Independently at each point in $\mathbb{Z}$ randomly place a car with probability p, and otherwise place an empty parking space. Each car independently executes a simple, symmetric random walk until it finds an empty parking space in which to park. How long does a car expect to drive before parking? Taking further a project of Damron, Gravner, Junge, Lyu, and Sivakoff, we show that for $p < 1/2$ the expected journey length of a car by time t is bounded, and for $p = 1/2$ it grows like $t^{3/4}$ up to polylogarithmic factors.

Joint work with Alexander Roberts and Alex Scott.